

**Notice of Allowability**

Application No.	Applicant(s)
10/649,279	DAVIS, DEAN VINSON
Examiner	Art Unit
Johnnie L. Smith II	2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to 08/27/2003.
2.  The allowed claim(s) is/are 1-39.
3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All
  - b)  Some\*  - c)  None. of the:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 0621
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

## DETAILED ACTION

### *Allowable Subject Matter*

1. Claims 1-39 are allowed.
2. The following is an examiner's statement of reasons for allowance: the prior art searched and cited failed to teach or fairly suggest a method for automatically optimizing an FTMS variable, for a plurality of FTMS samples each having a substantially similar number of molecules, repeatedly and automatically having steps of: obtaining a plurality of data sets by: applying a trapping plate voltage to at least one trapping plate of an FTMS cell and measuring a composite amplitude of an FTMS spectral output signals for the plurality of data sets; determining a variance for the composite amplitude and changing an FTMS variable until the variance is substantially minimized in combination with the remaining elements of claim 1.
3. The prior art searched and cited failed to teach or fairly suggest a method for automatically optimizing an FTMS variable for a plurality of FTMS samples each having a substantially similar number of molecules, repeatedly and automatically having steps of: obtaining a plurality of data sets by applying a trapping plate voltage to at least one trapping plate of an FTMS cell; measuring a composite amplitude of an FTMS spectral output signal and changing an FTMS variable until

the composite amplitude is substantially maximized in combination with the remaining elements of claim 2.

4. The prior art searched and cited failed to teach or fairly suggest a method comprising a plurality of activities having steps of automatically and repeatedly changing an ionizing current flux applied to an FTMS sample and determining if a composite amplitude of an FTMS spectral output signal changes approximately linearly in response to said changing activity until a maximum linearly-responsive ionizing current flux is found as disclosed in claim 3.

5. The prior art searched and cited failed to teach or fairly suggest a method for automatically optimizing an FTMS variable automatically and repeatedly having steps of obtaining a composite amplitude relating to an FTMS spectral output signal for each of a plurality of FTMS samples; determining a value of an optimization parameter, the optimization parameter a function of the composite amplitude; changing an FTMS variable until the value of the optimization parameter substantially converges on a convergence target in combination with the remaining elements of claim 4.

6. The prior art searched and cited failed to teach or fairly suggest a machine-readable medium containing instructions for activities automatically and repeatedly having steps of: obtaining a composite amplitude relating to an FTMS spectral

output signal corresponding to a plurality of FTMS samples; determining a value of an optimization parameter, the optimization parameter a function of the composite amplitude; changing an FTMS variable until the value of the optimization parameter substantially converges on a convergence target in combination with the remaining elements of claim 39. All remaining claims are allowable because of their dependencies.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

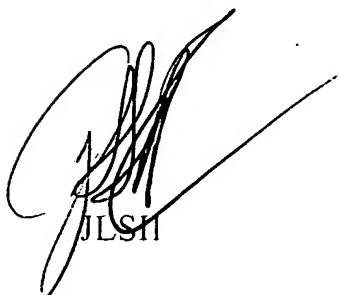
*Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. All of the references cited on attached PTO 892 contain art similar to that being claimed by applicant.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnnie L. Smith II whose telephone number is 571-272-2481. The examiner can normally be reached on Monday-Friday 6-2:30 P.M..

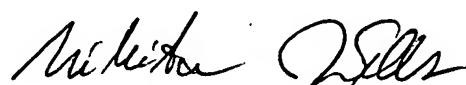
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on 571.272.2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



JLSII

Johnnie L Smith II  
Examiner  
Art Unit 2881



NIKITA WELLS  
PRIMARY EXAMINER

03/28/07